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Subject choice and inequalities in access to Higher Education: Comparing Scotland and Ireland

Cristina Iannelli and Markus Klein

Key points

- There are significant social inequalities in access to Higher Education in Scotland and Ireland. However, the importance of subject choice in reproducing these inequalities varies in the two countries.
- Pupils from working class backgrounds in Scotland take fewer academic subjects – those that facilitate access to Higher Education – than in Ireland. This pattern has remained persistent for the last 30 years.
- Although the level of social inequality in Higher Education entry has fallen over time, it has reduced more in Ireland than in Scotland.
- Social inequalities in entry to Higher Education are mostly explained by subject choice in Scotland. By contrast, they are more strongly associated with academic performance in Ireland.
- Patterns of social inequality and the role of school subject choice varies by type of Higher Education institution both in Scotland and Ireland.

It is well known that there are social inequalities in entry to Higher Education (HE) and that these are associated with poor academic performance amongst more disadvantaged young people. Pupils in this group tend to fall behind their peers at school and struggle to achieve the grades needed to enter Higher Education. However, attainment is not the whole story.

This study demonstrates that more attention should be paid to the importance of school subject choice in reproducing social-class differences in Scotland. In our research we compare the Scottish and Irish education systems. This allows us to analyse the association between school curricula, examination results and university entrance requirements and social inequalities in HE and, in doing so, to uncover the mechanisms by which parental background factors affect the chances of entry into HE.

Scotland and Ireland in comparison

Scotland and Ireland are similar in that they have comparable levels of social inequalities in education. Both countries have also seen expansion in the number of school pupils going into HE. However, Ireland and Scotland differ in the requirements for graduating from secondary education and entering HE. Unlike many European countries, Scotland



Social inequalities in entry to Higher Education are mostly explained by subject choice in Scotland.

lacks a standardised certification system, in which students need to take a certain number of compulsory subjects to graduate from secondary education and qualify for entry into HE. Moreover, each HE institution can specify its own entry requirements, and subject-specific grades are required for entry to certain fields of study. By contrast, in Ireland upper secondary students are required to study three compulsory subjects (English, Maths and Irish) and typically take six to eight subjects in the Leaving Certificate exam. Moreover, places in Higher Education are allocated through a centralised system which considers students' grades achieved in the Leaving Certificate (i.e. the results for the 'best' six subjects) as the main criterion for admission.

Applied Quantitative Methods Network

AQMeN is a Research Centre developing a dynamic and pioneering set of inter-disciplinary projects to improve understanding of current social issues in the UK.

The importance of school subject choice in Scotland

A recent dossier from the Russell Group universities (Russell Group, 2011) in the UK identified eight secondary subjects (English, Languages, Maths, Physics, Chemistry, Biology, Geography and History) as facilitating access to their Higher Education institutions. Early decisions on subject choice in secondary education therefore determine students' chances of entering Higher Education and prestigious universities in particular. In this study we argue that the fact that students have flexibility in choosing the type and number of subjects in upper secondary education in Scotland may lead to substantive differences among students from different social classes in their choice of school subjects. This, in turn, reinforces class-of-origin differences in Higher Education entry and later labour market outcomes (Iannelli, 2013).

In this research we investigate this issue by measuring the extent to which subject choice in upper secondary education explains class-of-origin differences in entry to Higher Education and access to different types of Higher Education institutions. For a summary of the data and methods we used, see box 1. The comparison with Ireland is instructive since this country has a more standardised examination system and there is less emphasis on subjects sat in the final secondary examination.

Study findings

Scotland and Ireland have a comprehensive education system up to the age of 16 and school curricula are mostly academic. However, they differ in the degree of standardisation of school examinations and HE entry requirements. Our findings show that these institutional differences matter in shaping the chances of entering Higher Education for people from different social classes. Our study demonstrates that the key driver of HE entry in Scotland is subject choice while in Ireland it is secondary school attainment.

Pupils from working class backgrounds in Scotland take fewer academic subjects – those that facilitate access to Higher Education – than in Ireland. This pattern has remained persistent for the last 30 years.

First, we analyse whether the number of subjects taken in upper-secondary education differs across social classes in the two countries. We found that, generally, Scottish students sit around 5 subjects while Irish students sit around 7 subjects in upper secondary education. Furthermore, we analyse whether the number of 'facilitating' subjects pupils sit differs across social classes. By this, we mean subjects such as English, Maths and Sciences which are deemed by the Russell Group universities to enable access to Higher Education.

Box 1: Data and methods

The data used for this research are a series of Scottish and Irish School-Leavers Surveys. The Scottish School-Leavers Surveys are nationally representative surveys of young people in all kinds of schools except special schools. Students were interviewed two or three times between the end of compulsory schooling and the age of 18/19. The Irish School-Leavers Surveys are nationally representative surveys of young people who left secondary school in the previous academic year. The sample is restricted to students who continued in school after compulsory education in both countries. The cohorts analysed covered the period between the end of the 1980s and the first years of the 21st century. Due to a significant proportion of missing data on exam grades, we could not use the cohort 1999-2001 for Ireland. Results on the cohort 1999-2001 in Scotland are available on request.

We use time-series data from the Scottish and Irish School-Leavers Surveys and logistic regression models to examine social class differences in the chances of entering HE and in the chances of attending different type of HE institution.

Figure 1 shows that, in Scotland, the average number of facilitating subjects taken by students from upper-middle class backgrounds (i.e. parents employed in higher grade professional, administrative and managerial occupations) was about 4 compared to only 2-3 for students from a working class background (i.e. parents employed in lower grade white collar jobs, skilled jobs, semi- and non-skilled jobs). In Ireland, the difference between social classes is much smaller: pupils from an upper-middle class background take on average 5-6 subjects and those from a working class background take on average 5 subjects. Over time, the gap between social class groups and average number of facilitating subjects remained the same in Scotland, while class-of-origin differences in subject choice fell slightly in Ireland.

Although the level of social inequality in Higher Education entry has fallen over time, it has reduced more in Ireland than in Scotland.

Second, we investigate how much of the class-of-origin gap in entry to Higher Education between students originating from the upper-middle class and students of working class background is explained by subject choice and performance in the two countries. Figure 2 shows that, at the end of the 1980s, both Scottish and Irish school pupils from an upper-middle class background had a probability of entering Higher Education that was almost 30 percentage points higher than the probability of pupils from a working class background. Between the 1987-1991 cohort and the 2005 cohort this "gross social gap" narrowed in both countries but more so in Ireland (to 15 percentage points difference) than in Scotland (to 21 percentage points difference).

Social inequalities in entry to Higher Education are mostly explained by subject choice in Scotland. By contrast, they are more strongly associated with academic performance in Ireland.

Figure 2 also shows the social gap when we take subject choice and academic performance into account. The results clearly reveal that the gross differences between upper-middle class students and working class students are more strongly reduced in Scotland than in Ireland when taking subject choice into account. In the 1987-1991 cohort, there is a 20 percentage point reduction in the probability of entering Higher Education in Scotland compared to an 11 percentage point reduction in Ireland. By contrast, class-of-origin differences are more strongly reduced in Ireland when attainment in different subjects is also taken into account. In the 1987-1991 cohort there is a 9 percentage point reduction in Ireland while in Scotland the equivalent reduction is only 3 percentage points. Similar patterns emerge in the 1993 and 2005 cohorts. In the 1993 cohort the social class gap in HE entry is reduced by 19 percentage points in Scotland and 11 percentage points in Ireland when subject choice is taken into account. In 2005 the same figures are respectively 14 and 5 percentage points. Confirming the results for the 1987-1991 cohort, attainment explains a larger part of the social class gap in Ireland than in Scotland.

Interestingly social inequalities in entry to Higher Education are fully explained by secondary-school subject choice and performance in the most recent

cohort in both countries. This result shows that social inequalities in HE entry can be entirely explained by variations in subject choice and attainment among people from different social origins in both countries.

Patterns of social inequality and the role of school subject choice varies by type of HE institution in both Scotland and Ireland.

We further analysed whether similar patterns could be found across different types of HE institution. We compared social inequalities in entry to ancient, old, and new universities and further education (FE) colleges in Scotland and in entry to universities and institutes of technology in Ireland. Our findings showed that social inequalities in entry into the ancient and old universities in Scotland were strongly associated with school subject choice. This is less the case for university entry in Ireland. Small or no social class differences were found in the other HE sectors, that is new universities and FE colleges in Scotland and institutes of technology in Ireland.

Conclusions

In line with the international literature (Van De Werfhorst and Mijs, 2010), our research shows that social inequalities in entry to Higher Education are reproduced via different mechanisms depending on the institutional context of the education system. In Scotland, students from different social backgrounds differ in the average number and types of subjects

Figure 1: Average number of facilitating subjects taken by upper-secondary pupils from different social backgrounds

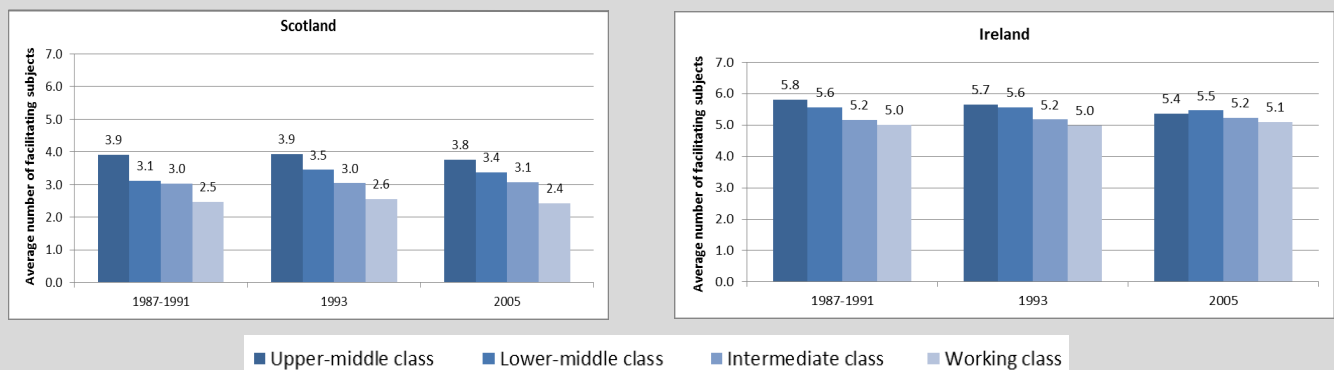
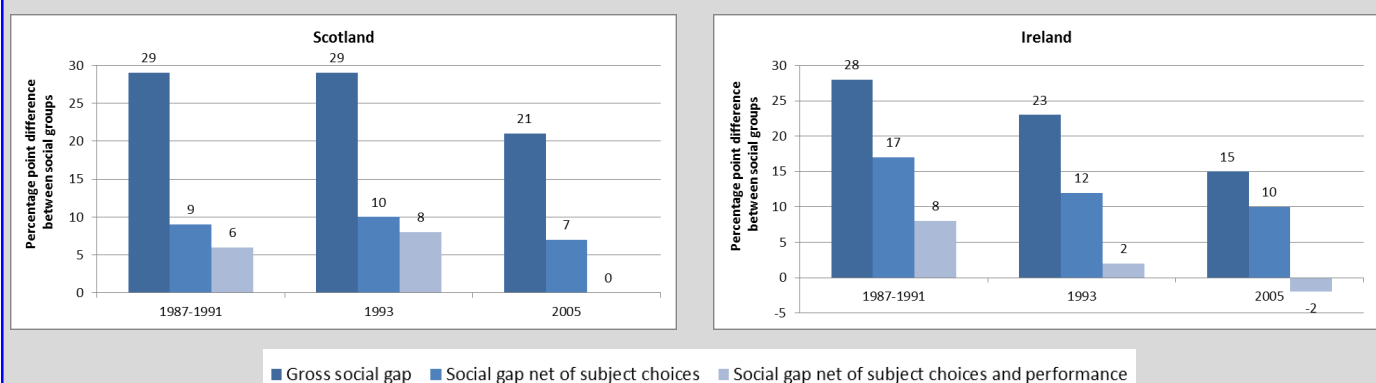


Figure 2: Percentage point differences in the probability of entering Higher Education between students from upper-middle and working class backgrounds





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studied in upper secondary education and this, in turn, affects their chances of entering Higher Education institutions, in particular the most prestigious universities. In Ireland, instead, a more standardised system of certification at the end of secondary school and a centralised system of allocation of HE places is associated with lower social inequalities in subject choice. Here, students from different social classes of origin differ in their probability of entering Higher Education largely because of differences in school performance.

Education systems, such as the Scottish system, which allow flexibility in curriculum choices, offer another avenue for social inequalities to emerge because more socially advantaged parents have more information and resources for ensuring that their children make the best decisions leading to higher educational attainment and better jobs. This is especially true when HE institutions put a lot of emphasis on subjects as a way for selecting people. Choices are not inherently bad for equality of educational opportunities but they require careful management to ensure that they do not end up reinforcing existing inequalities.

In the Scottish case, our results suggest that, for reducing inequalities in HE access, providing clear information and support in the curriculum decisions in the crucial years of secondary school is as important as improving attainment of more socially disadvantaged young people. On the other hand, in Ireland raising attainment seems to be the main policy lever for reducing inequalities in HE participation.

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